

REMARKS

Reconsideration of this application, as amended, is respectfully requested.

I. Status of the Claims

Claims 1 and 3 have been amended. The amendments do not add new matter.

Claim 5 has been canceled.

Claim 16 has been added.

Claims 1-4 and 6-16 are pending in this application.

II. Rejections Under 35 U.S.C. § 103(a)

Claims 1, 3 and 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable for obviousness over U.S. Patent No. 5,708,256 to Montagnino et al. (hereinafter "Montagnino") in view of either U.S. Patent No. 6,060,698 to Petrides et al. ("Petrides") or U.S. Patent No. 5,938,960 to Lulofs et al. ("Lulofs").

Regarding claims 1, 3 and 4, the Examiner states that Montagnino discloses a controller for a heating pad which uses duty cycle control and includes fast heat-up in a predetermined time. The Examiner admits that Montagnino does not disclose using a counter in the oscillator circuit. However, the Examiner states that both Petrides and Lulofs disclose the use of counters in oscillator duty cycle control to control the temperature of heating coils in cooking appliances, i.e., toasters. The Examiner contends that it would have been obvious to one of ordinary skill in the art to combine Montagnino with Petrides or Lulofs to achieve the claimed invention.

Applicants have amended independent claims 1 and 3 to include the limitation of claim 5 whereby the temperature control apparatus comprises a plurality of LEDS connected to the user controlled temperature adjustment circuit for providing a means of selecting available heating modes of the controller. Applicants respectfully submit that this amendment renders the above rejection moot.

Claims 2 and 5-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable for obviousness over Montagnino in view of Petrides or Lulofs and in further view of U.S. Patent No. 6,311,608 to Hardin et al. ("Hardin").

Regarding claims 2 and 5-15, the Examiner states that Montagnino in view of Petrides or Lulofs discloses a heating pad controller as set forth above with the exception of using LEDs as an input selector means. The Examiner states that Hardin discloses using LEDs as part of the product selection temperature control to make a more user-friendly device. The Examiner contends that in view of Hardin it would have been obvious for one of ordinary skill in the art to combine the heating pad controller as taught by Montagnino in view of Petrides or Lulofs to use an LED input selector to achieve the claimed invention. Applicants respectfully traverse the above rejection.

Claim 2 requires that the controller provide for heating modes by detecting the presence or absence of LEDs. Hardin does not teach or suggest this measure. Instead, Hardin discloses a toaster oven with a plurality of LEDs 88 which are sequentially turned on and off as a rotary control knob 90 is rotated by a user. Hardin's LEDs 88 visually identify the potentiometer setting, however the rotary potentiometer 92 supplies a signal to the microprocessor 76 to control the toast time. See Hardin, column 7, lines 5-14. Hardin's LEDs are merely visual representations used to "identify" the potentiometer setting. Hardin's microprocessor 76 does not detect the presence or absence of

LEDs, nor does Hardin disclose that LEDs 88 can be absent from his device, permitting microprocessor 76 to detect such an absence and remove the corresponding heat setting from the device operation.

Additionally, Hardin's LEDs do not define whether a control mode can or cannot be activated. Hardin's LEDs only indicate when, in response to selection by the control knob 90, a heat setting has been selected by a user. The fact that Hardin's microprocessor 76 activates LEDs 88 sequentially in a clockwise manner when the toast cycle begins and turns them off progressively as time elapses is of little consequence because Hardin's LEDs do not tell the microprocessor which heat modes are available and which are not. Applicants direct the Examiner to claim 2 reciting, "said controller provides for at least one heat mode by detecting the presence of at least one of said plurality of LEDs, and deactivates a heat mode in response to the absence of said at least one of said plurality of LEDs." Applicants submit that this distinction between Hardin on the one hand and the present invention on the other hand is a fundamental difference.

Applicants have amended claims 1 and 3 to include the limitation recited in canceled claim 5. Applicants submit that the above argument pertains to amended claims 1 and 3 as well.

Claims 4, 6-12 and 14-15 depend from amended claim 3 and are patentable for at least the reasons presented above with respect to claim 3.

III. New Claim 16

Applicants have added new claim 16 which is modeled after claim 1, however further defines the counters ability to operate at at least two different frequency signals (i.e. 50 Hz and 60 Hz), as disclosed in the Specification on page 14, line 11 through page 15. The prior art of record

does not teach or suggest a heating pad controller operable to regulate temperature independent of the frequency of the supplied AC signal.

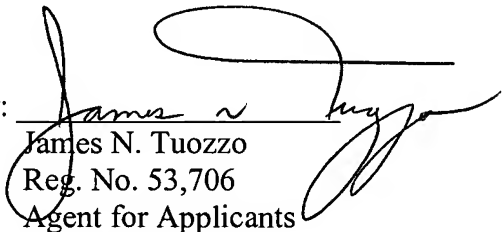
CONCLUSION

In view of the above amendments and remarks, it is believed that claims 1-4 and 6-16 are in condition for allowance and it is respectfully requested that the application be reconsidered and that all pending claims be allowed and the case passed to issue.

If there are any other issues remaining which the Examiner believes could be resolved through either, a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

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Respectfully submitted,

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